

Project Data Summary Sheet²¹⁹

Project Number	AIR 6000 Phase 2A/2B
Project Name	NEW AIR COMBAT CAPABILITY
First Year Reported in the MPR	2010-11
Capability Type	Replacement
Acquisition Type	Developmental
Service	Royal Australian Air Force
Government 1st Pass Approval	Nov 06
Government 2nd Pass Approval	Nov 09 (Stage1) Apr 14 (Stage 2)
Total Approved Budget (Current)	\$15,181.1m
2014-15 Budget	\$296.5m
Project Stage	Enter Contract
Complexity	ACAT I



Section 1 – Project Summary

1.1 Project Description

The AIR 6000 New Air Combat Capability (NACC) Project aims to introduce the F-35A Joint Strike Fighter (JSF) capability that will meet Australia's air combat needs out to 2030 and beyond. AIR 6000 Phase 2A/2B of the project is approved to acquire 72 Conventional Take Off and Landing (CTOL) F-35A JSF aircraft to establish three operational squadrons, a training squadron and necessary supporting/enabling elements to replace the F/A-18A/B Hornet capability.

Lockheed Martin is contracted to the United States (US) Government for the development and production of the F-35A JSF. The aircraft and associated support systems are being procured through a government to government co-operative agreement with the US and JSF partner nations, **comprising** the United Kingdom, Canada, Italy, Denmark, Norway, Netherlands and Turkey. Japan, Israel and the Republic of Korea are also procuring the F-35A JSF through US Foreign Military Sales (FMS) agreements.

1.2 Current Status

Cost Performance

In-year

In year expenditure was approximately twenty one per cent below budget (an underspend of \$63.3m). The major contributors to the variance were the contracting timeframes and the unpredictability of expenditure forecasts for F-35 Joint Program Office (JPO) contracted activity.

Project Financial Assurance Statement

As at 30 June 2015, Project AIR 6000 Phase 2A/2B has reviewed the approved scope and budget for those elements required to be delivered by the project. Having reviewed the current financial and contractual

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Future dates and Sections: 1.3 (Major Risks and Issues), 4.1 (Measures of Materiel Capability Delivery Performance), 5.1 (Major Project Risks) and 5.2 (Major Project Issues) are out of scope for the ANAO's review of this Project Data Summary Sheet. Information on the scope of the review is provided in the *Independent Review Report by the Auditor-General* in **Part 3** of this report.

obligations of the project, current known risks and estimated future expenditure, Defence considers, as at the reporting date, there is sufficient budget remaining for the project to complete against the agreed scope.

Contingency Statement

The project has **not** applied contingency in the financial year.

Schedule Performance

Australia's first two aircraft **were** delivered in 2014, as part of Materiel Release 1 (MR1) commencement of Pilot training in the US.

Facilities works were approved by the Public Works Committee and construction work has commenced at RAAF Base Williamtown.

F-35 Mission System Block 3F software development is showing slippage against the manufacturer's baseline. Reported delays will not impact on Australian Initial Operational Capability (IOC) or Final Operational Capability (FOC) delivery dates but are continuing to be monitored and assessed.

The Australian F-35 sustainment solution is immature. The Government announcement of an F-35 regional support hub in Australia has assisted in planning of Australian Sustainment.

The F-35 Partner Reprogramming Lab contract signature was awarded on 9 April 2015, with risk to Mission Data File delivery in time for IOC being monitored.

The first Australian F-35A pilot has completed training and the second pilot commenced training in May 2015.

System integration of Block 2B Fleet Release is expected to be achieved in July 2015 (US Marine Corps IOC Declaration).

Aircraft 15-72 are scheduled to be delivered by end of 2023, as part of FOC.

Materiel Capability Delivery Performance

The capability of the F-35A JSF Air System is now reaching a level of maturity where the project is confident it will be able to meet the agreed threshold level of capability required for IOC in 2020. However, there remain risks to achieving IOC and FOC of the JSF capability associated with establishment of enabling systems and capabilities, and risk to achieving FOC software capability on schedule. The enabling systems and capabilities include: sustainment establishment, facilities, information systems, reprogramming, weapons integration and training systems.

Note

The capability assessments and forecasts by the project are not subject to the ANAO's assurance review.

1.3 Project Context

Background

Project AIR 6000 was established in 1999 to replace the air combat capabilities provided by the F/A-18A/B and F-111 fleets. In 2002 Government identified the Lockheed Martin F-35A JSF as the preferred option and joined the System Development and Demonstration (SDD) phase of the JSF Program as the eighth (and last) Partner. At this time the project discontinued the competitive evaluation under AIR 6000. The subsequent decision by Government to acquire the F-35A JSF has been taken progressively including:

- Providing First Pass Approval in November 2006, which included agreement to join the next phase of the JSF Program and funded project AIR 6000 Phase 1B detailed definition and analysis activities to support Government Second Pass Approval for AIR 6000 Phase 2A/2B.
- Signing the multilateral Production, Sustainment and Follow-on Development (PSFD) Memorandum of Understanding (MoU) in December 2006 to allow entry into the next stage of the JSF Program.
- AIR 6000 Phase 2A/2B Stage 1 Approval in November 2009 to acquire 14 CTOL F-35A JSF aircraft and associated support and enabling elements necessary to establish the initial training capability in the US, commencing in 2014, and to allow commencement of Operational Test in the US and Australia.
- AIR 6000 Phase 2A/2B Stage 2 was approved by Government in April 2014 to acquire an additional 58 CTOL F-35A JSF aircraft and enabling elements. The combined acquisition of 72 aircraft will provide an FOC in 2023 comprising three operational squadrons of fifth generation F-35 JSF to replace the F/A-18A/B Hornet aircraft.

Uniqueness

The JSF Program was established by the US Government as the first international collaborative

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development program for a US military aircraft. The program includes initial design, production, follow-on development and through life support of the JSF global fleet.

The JSF Program is expected to deliver over 3000 aircraft to the nine MoU Partners (with the US to acquire **approximately 75** per cent of the total) with the potential for significant additional aircraft procurements by FMS customers.

The JSF is characterised by a low observable (stealth) design, internal weapons and fuel carriage, advanced electro-optical and infrared sensors, long range, the ability to employ a wide range of air-to-surface and air-to-air weapons, advanced communications suite to enable network centric operations, state of the art prognostics and health management, a single interchangeable engine and reduced support requirements.

Due to strict US export restrictions imposed on the JSF Air System, direct commercial sale is not permitted. JSF aircraft and associated supporting systems will be acquired by Australia under the PSFD MoU arrangements. Key factors are:

- The US Government **has contracted** with Lockheed Martin and Pratt & Whitney on Australia's behalf in accordance with US contracting laws, regulations and procedures.
- The F-35 JPO's acquisition strategy is to commence with eleven annual Low Rate Initial Production (LRIP) contracts, transitioning from a Fixed Price Incentive Fee to a Firm-Fixed Price at the appropriate time.
- Each contract will require a separate Partner Procurement Request (PPR) from each partner nation defining their requirements for that buy. PPRs are submitted two years ahead of contract and four years ahead of delivery.
- F-35A JSF Aircraft to be delivered under Phase 2A/2B will initially be acquired under separate annual contracts until 2019 deliveries (LRIP 11). Subsequent procurements are planned to transition from single lot buys to a multi-year procurement.
- The Australian F-35A JSF capability is to be supported under a global support arrangement (referred to as 'Autonomic Logistics Global Sustainment') through performance-based contracts.

As well as providing capability and programmatic benefits, a key aim of Australia's participation in the JSF Program is to embed Australian industry in the JSF global supply and support chain for the life of the JSF Program. The Commonwealth continues to work with the Prime Contractor Lockheed, its JSF industry partners and their sub contractors to achieve long term industry outcomes for Australia.

Major Risks and Issues

The JSF is a large and complex program and many challenges remain. While as a MoU Partner Australia does have a role, overcoming technical challenges is primarily a US responsibility.

The major risks facing the NACC Project are:

- Possibility of US and JSF Partner Governments altering commitments to the broader JSF Program that impacts Australian acquisition and life-cycle costs.
- Integration of the JSF into the ADF systems.
- Establishing the required facilities and Information, Communications and Technology (ICT) infrastructure to support stand up of the JSF capability.
- Lack of timely data and releaseability of JSF program information that impacts the timely, efficient and effective integration of the F-35 aircraft system into the Australian Defence Force.
- The maturity of the JSF System and ability to meet IOC and FOC.
- Transition of the JSF into service at the same time RAAF ramps up Australian Super Hornet and Growler capabilities.
- Establishing and ramping up the JSF sustainment system.
- **Establishing the Reprogramming element of the program.**
- Ensuring required industry outcomes during JSF production and transition into service.
- **Significant workforce challenges in effectively manning the Defence acquisition and sustainment organisations impacts program management activities to establish the JSF capability.**

The major issues facing the NACC Project are:

- Noise associated with the introduction of the JSF at RAAF Base Williamtown.
- **Establishing the training system.**

Other Current Sub-Projects

AIR JSF SDD – Participation in the JSF System Development and Demonstration (SDD) Program: The contribution to the SDD Program is in two parts, a cash component of SDD funding of US\$144m, and a non-financial component of US\$6m with the Defence Science and Technology Organisation (DSTO) conducting a Pacific Rim Command, Control, Communication, Computing, Intelligence, Surveillance, and Reconnaissance study. All AIR JSF SDD financial milestones have been completed. The US SDD Phase is due to be closed in 2017 following the completion of Development and Test of the Block 3 software.

Section 2 – Financial Performance

2.1 Project Budget (out-turned) and Expenditure History

Date	Description	\$m	Notes
	Project Budget		
Nov 09	Original Approved	2,751.6	
May 12	Real Cost Decrease	(204.4)	1
Sep 12	Real Cost Increase	201.5	1
Jun 14	Government Second Pass Approval – Stage 2	10,515.4	2
		10,512.5	
Jul 10	Price Indexation	351.0	3
Jun 15	Exchange Variation	1,566.0	
Jun 15	Total Budget	15,181.1	
	Project Expenditure		
Prior to Jul 14	Contract Expenditure – US Government PSFD MoU (FY 09/10 – 13/14)	(181.0)	4
	Contract Expenditure – US Government – LRIP 6 Production	(161.7)	4
	Contract Expenditure – US Government – LRIP 6 Propulsion	(38.0)	4
	Other Contract Payments / Internal Expenses	(70.4)	5
		(451.1)	
FY to Jun 15	Contract Expenditure – US Government – LRIP 6 Production	(83.8)	4
	Contract Expenditure – US Government – PSFD MoU (FY14/15 – 22/23)	(70.9)	4
	Contract Expenditure – US Government – LRIP 10 Production	(18.0)	4
	Contract Expenditure – US Government – LRIP 6 Propulsion	(9.4)	4
	Other Contract Payments / Internal Expenses	(51.1)	6
		(233.2)	
Jun 15	Total Expenditure	(684.3)	
Jun 15	Remaining Budget	14,496.8	
Notes			
1	A May 2012 budget adjustment (\$204.4m) was applied to AIR 6000 Phase 2A/2B based on an incorrect interpretation of the Government's decision to vary the NACC Program. In September		

	2012, a budget adjustment correction was applied \$201.5m, using an updated exchange rate. As a result, the project's total approved budget has remained the same as intended by Government.
2	Government approved AIR 6000 Phase 2A/2B Stage 2 in April 2014 for an additional 58 CTOL F-35A JSF aircraft.
3	Up until July 2010, indexation was applied to project budgets on a periodic basis. The cumulative impact of this approach was \$70.3m. In addition to this amount, the impact on the project budget as a result of out-turning was a further \$280.8m having been applied to the remaining life of the project.
4	The scope of this contract is explained further in Section 2.3 – Details of Project Major Contracts.
5	Other expenditure for this period is primarily associated with activity to integrate NACC specific information systems into the Defence Information Environment (DIE) (\$39.3m) , the NACC Industry Support Program (Grants) (\$5.7m) , F-35A base planning and facility design and Environmental Impact Statement development (\$3.4m) , Enterprise Architecture Modelling activity (\$2.3m) , Reprogramming Laboratory (\$1.4m) , Diminishing Manufacturing Supplies (\$1.0m), Co-operative Program Personnel (US based) expenses (\$0.8m) , LRIP 7 (\$0.3m) and Safety Case (\$0.1m) . The remainder is comprised of expenditure associated with project travel, minor office expenses and contractors.
6	Other expenditure for this period is primarily associated with: construction services for the F-35 Partner Reprogramming Lab facility (\$10.5m) , activity to integrate NACC specific information systems into the Defence Information Environment (DIE) (\$7.7m) , Diminishing Manufacturing Supplies (\$6.2m) , LRIP 8 Production Contract (\$4.9m) , Initial Operational Test and Evaluation MoU (\$2.6m) , Reprogramming Support (\$2.5m) , Contractor Support (\$2.5m) , LRIP 7 (\$2.3m) , Enterprise Architecture Modelling activity (\$1.8m) , NACC Industry Support Program (Grants) (\$1.7m) , FMS Cases associated with weapons (\$1.4m) , Co-operative Program Personnel (US based) expenses (\$1.2m) , and F-35 facility design and Environmental Impact Statement development (\$0.5m) . The remainder (\$5.3m) is comprised of expenditure associated with internal Defence activity support , project travel and minor office expenses.

2.2A In-year Budget Estimate Variance

Estimate PBS \$m	Estimate PAES \$m	Estimate Final Plan \$m	Explanation of Material Movements
237.9	277.9	296.5	PBS – PAES - Variation the result of inclusion of new expenditure following Stage 2 approval, revised projections to reflect latest assessments of expected billing against US Government contracts and exchange rate adjustments. PAES – Final Plan - Variation is the result of exchange rate adjustments.
Variance \$m	40.0	18.6	Total Variance (\$m): 58.6
Variance %	16.8	6.7	Total Variance (%): 24.6

2.2B In-year Budget/Expenditure Variance

Estimate Final Plan \$m	Actual \$m	Variance \$m	Variance Factor	Explanation
			FMS	Variance is primarily due to F-35 JPO contracted timeframes and predictability of expenditure forecasts and Project Office activity not occurring as forecast.
		(54.8)	Overseas Industry	
			Local Industry	
			Brought Forward	
			Cost Savings	
		(1.3)	FOREX Variation	
		(7.2)	Commonwealth Delays	
			Additional Government Approvals	
296.5	233.2	(63.3)	Total Variance	
		(21.3)	% Variance	

2.3 Details of Project Major Contracts

Contractor	Signature Date	Price at		Type (Price Basis)	Form of Contract	Notes
		Signature \$m	30 Jun 15 \$m			
US Government PSFD MoU (FY 09/10 – 13/14)	Dec 06	167.1	181.0	Various	MoU	1, 9, 10
US Government PSFD MoU (FY 14/15 – 22/23)	Dec 06	253.1	486.8	Various	MoU	2, 9, 10
US Government (LRIP 6 Production)	May 11	22.0	264.5	Fixed Price Incentive	USG Contract	3, 9, 10
US Government (LRIP 6 Propulsion)	Aug 11	5.8	50.7	Fixed Price Incentive	USG Contract	4, 9, 10
US Government (LRIP 10 Production)	Dec 14	79.2	86.1	Fixed Price Incentive	USG Contract	5, 9, 10
US Government (AT-P-AZT)	Feb 15	51.0	54.8	Reimbursement	FMS	9, 10
US Government (AT-D-YLC)	Feb 15	22.5	24.2	Reimbursement	FMS	9, 10
US Government (LRIP 10 Propulsion)	Mar 15	13.4	12.6	Fixed Price Incentive	USG Contract	6, 9, 10
US Government (Reprogramming Laboratory Phase 1)	Mar 15	119.0	113.6	Fixed Price Incentive	USG Contract	7, 9, 10
US Government (LRIP 8 Non-Annualised Sustainment)	Jun 15	99.9	91.6	Fixed Priced Incentive	USG Contract	8, 9, 10
Notes						
1	Contribution to PSFD MoU shared costs based on proportionality principle: i.e. number of aircraft purchased as a percentage of entire partner fleet. Commitment via MoU signature in December 2006 with price re-baselined from 2002 to 2012 per US Government update. Covers period from 2009–10 to 2013–14 as approved by Government in November 2009 and is now complete . The PSFD MoU 'contract' is a 'variable' priced 'contract' in that it is updated annually to reflect both estimated shared costs and escalation.					
2	Contribution to PSFD MoU shared costs based on proportionality principle: i.e. number of aircraft purchased as a percentage of entire partner fleet. Commitment via MoU signature in December 2006 with price re-baselined from 2002 to 2012 per US Government update. Covers period from 2014–15 to 2022–23 as approved by Government in April 2014. The PSFD MoU 'contract' is a 'variable' priced 'contract' in that it is updated annually to reflect both estimated shared costs and escalation. Contract Price increase since signature due to increased tooling replacement cost not previously included; inclusion of scope previously considered country unique; and updated estimates for shared sustainment, Follow-on Development and F-35 Joint Program Office administration.					
3	Production contract for Australia's first two F-35A aircraft including initial Long Lead items, support equipment and other hardware and services. This contract is progressively modified with approved work scope and forms the basis of the Air System contract for the complete system – per Section 1.3 'Uniqueness'.					

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4	Production contract for two engines for installation on Australia's first two F-35A aircraft. Also includes one spare engine and initial Long Lead items. This contract is progressively modified with approved work scope and forms the basis of the propulsion contract for the complete system – per Section 1.3 'Uniqueness'.			
5	Production contract for Australia's next tranche of eight F-35A aircraft for initial Long Lead items. This contract is progressively modified with approved work scope and forms the basis of the Air System contract for the complete system – per Section 1.3 'Uniqueness'.			
6	Production contract for eight engines for installation on Australia's next tranche of eight F-35A aircraft. This contract is progressively modified with approved work scope and forms the basis of the propulsion contract for the complete system – per Section 1.3 'Uniqueness'.			
7	Contract for Phase 1 Reprogramming Laboratory hardware and software tools.			
8	LRIP 8 Non Annualised Sustainment contract for the provision of training devices, support equipment, non-aircraft spares.			
9	Contract value as at 30 June 2015 is based on actual expenditure to 30 June 2015 and remaining commitment at current exchange rates, and includes adjustments for indexation (where applicable).			
10	The scope of this contract is explained further below.			
Contractor	Quantities as at		Scope	Notes
	Signature	30 Jun 15		
US Government (PSFD MoU)	N/A	N/A	Australia's contribution to shared costs from 2010 to 2023 based on the purchase of 100 aircraft. Includes contribution to production tooling, US overhead cost of running program, follow on development and shared sustainment activities.	1
US Government (LRIP 6 Production)	2	2	Procurement of the first two Australian F-35A aircraft including Advanced Acquisition items and services and progressive associated work scope.	
US Government (LRIP 6 Propulsion)	3	3	Provision of engines for installation on Australia's first two F-35A aircraft plus one spare engine.	
US Government (LRIP 10 Production)	8	8	Procurement of Advanced Acquisition items associated with the next eight F-35A aircraft procurement.	
US Government (AT-P-AZT)	N/A	N/A	Procurement of the AIM-9X Weapon System.	
US Government (AT-D-YLC)	N/A	N/A	Procurement of AIM-120 AMRAAM Weapon System.	
US Government (LRIP 10 Propulsion)	8	8	Procurement of Advanced Acquisition items associated with propulsion systems for the next eight F-35A aircraft procurement.	
US Government (Reprogramming Laboratory Phase 1)	N/A	N/A	Reprogramming Laboratory Hardware and Software tools.	

US Government (LRIP 8 Non-Annualised Sustainment)	N/A	N/A	Training devices, support equipment and non-aircraft spares.	
Major equipment received and quantities to 30 June 15				
Two F-35A aircraft delivered November 2014 to support commencement of training in the USA.				
Notes				
1	No equipment delivered as part of this contract.			

Section 3 – Schedule Performance

3.1 Design Review Progress

Review	Major System/Platform Variant	Original Planned	Current Planned	Achieved /Forecast	Variance (Months)	Notes
Preliminary Design	JSF Air System (CTOL Variant)	Mar 03	N/A	Jul 03	4	1
Critical Design	JSF Air System (CTOL Variant)	Apr 04	Feb 06	Feb 06	22	2
Notes						
1	Aircraft weight was the major issue that delayed the closure of the Preliminary Design Review (PDR) by four months.					
2	Design refinements following PDR failed to achieve the weight savings initially expected and considerable additional design effort was required. The original planned CTOL Critical Design Review (CDR), planned for April 2004, was re-scheduled to February 2006 after the redesign effort was completed, which included the 'roll up' of many lower-tiered reviews.					

3.2 Contractor Test and Evaluation Progress

Test and Evaluation	Major System/Platform Variant	Original Planned	Current Planned	Achieved /Forecast	Variance (Months)	Notes
System Integration	Block 2B Fleet Release (against IMS7 Baseline)	Jun 15	Jun 15	Jul 15	1	1
	Block 3i Initial Release to support LRIP 6 (against IMS7 Baseline)	Mar 14	Nov 14	Sep 14	6	2
	Block 3F Fleet Release (against IMS7 Baseline)	Aug 17	Dec 17	May 17	(3)	3
Acceptance	Accept and deliver two (LRIP 6) aircraft to US Pilot Training Centre	Mar 14	Nov 14	Nov 14	8	4
	Accept and deliver aircraft 3-14	Dec 16	Jun 19	Jun 19	30	5
	Accept and deliver aircraft 15-72	Dec 23	Sep 23	Sep 23	(3)	6
Notes						
1	Block 2B supports the United States Marine Core IOC declaration currently planned for July 2015.					
2	Block 3i Initial Release software provides initial pilot training capability for the Low Rate Initial Production (LRIP) 6 aircraft configuration. The six month variance in Block 3i Initial Release software development is due to delays in earlier software deliveries and compounded by integration into the updated computer architecture delivered in LRIP 6 aircraft.					
3	Block 3F Fleet Release is final capability software state under the SDD Program. The latest software schedule from Lockheed Martin indicates that 3F Fleet Release has been split into variant specific Fleet Release Loads. The F-35A version of 3F Mission Systems Software is planned for Fleet Release in the US during May 2017. Production and retrofit to the Australian F-35A will follow, with projected lead times satisfying the Australian F-35A IOC objective schedule.					

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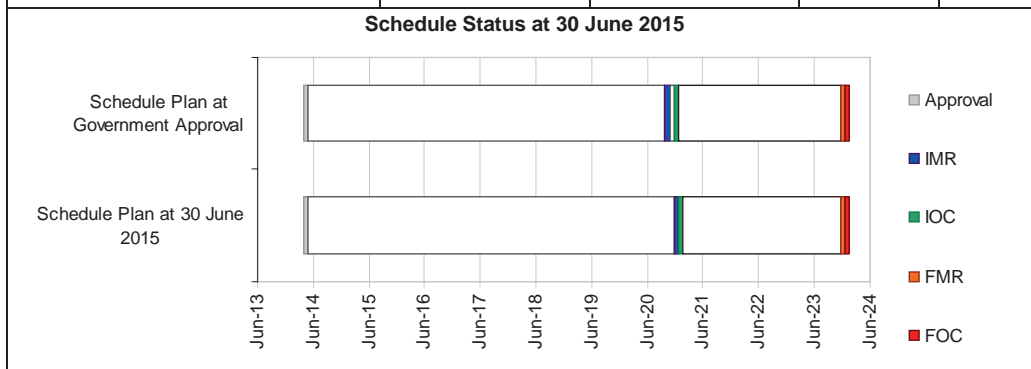
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4	The March 2014 original delivery date was planned on IOC in 2018. The November 2014 delivery date reflects a two year deferral in production to align with the US re-baselining of JSF production, and verification of new software load for LRIP 6 aircraft to assure an appropriate training capability.
5	The remaining 12 Stage 1 Aircraft were originally scheduled for delivery by 2017 leading to IOC in 2018. In March 2010, the JSF Program experienced a Nunn-McCurdy breach of the critical cost growth statutory threshold. Based on subsequent delays to SDD completion and the US aircraft buy profile, the Australian Government initiated a two year deferral in production and IOC, with Aircraft (14) planned to be accepted in June 2019 to achieve IOC in December 2020.
6	Variance is due to the expected completion of Aircraft 72 production in July 2023, resulting in Aircraft 72 early acceptance and ferry to Australia in September 2023.

3.3 Progress Toward Materiel Release and Operational Capability Milestones

Item	Original Planned	Achieved/Forecast	Variance (Months)	Notes
Initial Materiel Release (IMR)	Oct - Dec 20	Dec 20	0	
Initial Operational Capability (IOC)	Dec 20	Dec 20	0	
Final Materiel Release (FMR)	Oct - Dec 23	Dec 23	0	
Final Operational Capability (FOC)	Dec 23	Dec 23	0	

Schedule Status at 30 June 2015



Section 4 – Materiel Capability Delivery Performance

4.1 Measures of Materiel Capability Delivery Performance

Pie Chart: Percentage Breakdown of Materiel Delivery Capability Performance	
<p>A pie chart divided into two equal halves. The top half is colored orange and labeled '50%'. The bottom half is colored green and labeled '50%'.</p>	<p>Green:</p> <p>The project has assessed that the JSF Support Equipment, Alternate Mission Equipment and Spares provision expects to meet the materiel capability delivery performance required for Stages 1 and 2. Other satisfactory indicators are not directly related to capability but are related to progress against Australia’s obligations under the PSFD MoU and the Australian Industry Support Initiatives Program.</p> <p>Amber:</p> <p>The project assesses that Phase 2A/2B (Combined Stage 1 and 2) will deliver its materiel requirements, noting there are a number of risks to achieving some of the materiel capabilities required to deliver IOC and FOC.</p> <p>These risks include:</p> <ol style="list-style-type: none"> 1. Integration of JSF into the ADF system, mitigated through ongoing engagement with Air Combat stakeholders to optimise the delivery of capabilities that perform the air power roles of Control of the Air and Strike. 2. Final software builds meeting required functionality by IOC and FOC, mitigated by pro-active coordination between all organisations with responsibilities for acquiring, integrating and supporting the JSF in-service. 3. Establishing the sustainment capability, mitigated by establishing and ramping up the JSF sustainment system. 4. Establishing the training system, mitigated by: <ol style="list-style-type: none"> a. The Change Control Board process to clarify the requirements to ensure an agreed outcome. b. Working with all stakeholders and undertake better planning to ensure expectations are clearly understood. c. Identify any cost impacts. <p>Red:</p> <p>N/A</p>
<p>Note</p> <p>This Pie Chart does not necessarily represent capability achieved. The capability assessments and forecasts by the project are not subject to the ANAO’s assurance review.</p>	

4.2 Constitution of Initial Materiel Release and Final Materiel Release

Item	Explanation	Achievement
Initial Materiel Release (IMR)	<p>Delivery of 15 aircraft throughout 2020 to support OT&E and the transition of No.3 Squadron (SQN) and No.2 Operational Conversion Unit, when combined with the 12 aircraft returning to Australia on completion of US based training.</p> <p>77 SQN facilities fully fitted, accredited, staffed and ready to support flying operations.</p> <p>Materiel delivery, OT&E, training, support and transition activities required for IOC completed.</p>	Not achieved
Final Materiel Release (FMR)	<p>Delivery of final nine aircraft resulting in all 72 F-35A aircraft in Australia.</p> <p>Block 4 software and hardware delivered to provide FOC capability.</p> <p>Delivery and acceptance, commissioning or contracting in Australia of the aircraft, spares, support systems, and personnel, training, weapons, equipment, contracts and facilities necessary for ongoing operations of three Operational Squadrons and one training Squadron at FOC.</p> <p>Materiel delivery, OT&E, training, support and transition activities required for FOC completion.</p>	Not achieved

Section 5 – Major Risks and Issues

5.1 Major Project Risks

Identified Risks (risk identified by standard project risk management processes)	
Description	Remedial Action
Possibility of US and JSF Partner Governments altering commitments to the broader JSF Program that impacts Australian JSF acquisition and life-cycle costs.	Australian membership of the JSF Executive Steering Board provides the opportunity to understand and influence Partner imperatives.
Integration of the JSF into the ADF systems.	Ongoing analysis of interfaces with other ADF platforms to ensure optimal interoperability. Participation in the US test activities will enable Australia to obtain greater understanding of the systems integration risks and issues and thereby develop appropriate treatment strategies. This may include the incorporation of Australian platforms and systems into the test program.

Establishing the required facilities and ICT infrastructure to support stand up of the JSF capability.	The delivery strategy and scope of facilities program has been significantly revised such that cost pressures are no longer considered a major threat to project success. While Public Works Committee approval was achieved on the 29 October 2014 , schedule pressures are still a significant concern. The Managing Contractor for the design and delivery of the facilities has identified measures to fast track construction if required. Ongoing engagement with the JPO and key stakeholders to ensure ICT systems development and integration are synchronised with the broader JSF facilities program.
Lack of timely data and releaseability of JSF program information that impacts the timely, efficient and effective integration of the F35 aircraft system into the Australian Defence Force (ADF).	Ongoing engagement with the JPO and JSF stakeholders to coordinate and obtain the necessary data and information to enable the JSF system integration into the ADF.
Maturing of the JSF System to meet IOC and FOC.	Pro-active coordination between all organisations with responsibilities for acquiring, integrating and supporting the JSF in-service.
Transition of the JSF into service at the same time as ramping up Australian Super Hornet and Growler capabilities.	Ongoing engagement with Air Combat stakeholders to optimise the delivery of capabilities that perform the air power roles of Control of the Air and Strike.
Establishing and ramping up the JSF sustainment system. The NACC Project has identified cost and schedule pressures due to an evolving sustainment solution, which if not adequately defined will lead to capability impacts for IOC and FOC.	The US has released strategies for Australia's involvement in regional support for the JSF but continued engagement with the JPO is required to develop and define a detailed JSF sustainment solution for Australia . Cost and schedule business cases will be required to define the sustainment baselines.
The NACC Project has identified schedule and cost pressures for the Reprogramming element of the program.	Australian participation in contract negotiations with Lockheed Martin considerably improved the project's understanding of technical and programmatic issues. Australia will maintain engagement with the JPO to monitor performance of Stage 1 and to further improve understanding of issues – particularly schedule - in preparation for Stage 2 contract development.
Ensuring required industry outcomes during JSF production and transition into service. The NACC Project has identified the need to optimise the implementation of an industry support program to assist Australian industry to win JSF related contracting opportunities in both production and sustainment.	The US has released strategies for Australia's involvement in regional support for the JSF but the project office continues to influence US JPO sustainment planning to optimise industry participation in F35 Modification Repair Overhaul and Upgrade opportunities.
Emergent Risks (risk not previously identified but has emerged during 2014-15)	
Description	Remedial Action
Significant workforce challenges in effectively manning the Defence acquisition and sustainment organisations impacts program management activities to establish the JSF capability.	Provision of supplemental resources to develop and fully support JSF program management activities.

5.2 Major Project Issues

Description	Remedial Action
<p>Noise associated with introducing the JSF at RAAF Base Williamtown is an ongoing sensitive issue and Defence is continuing to investigate options to reduce the noise impacts.</p>	<p>An environmental impact statement has been developed on the proposed flying operations of the F-35A aircraft. This is required to be assessed under the requirements of Commonwealth legislation, specifically the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>. As part of the environmental assessment the potential impact of noise on the Williamtown area has been assessed. The project anticipates that noise will remain an ongoing issue until the Minister for the Environment finalises his approval decision, which is anticipated to occur in July 2015. Public consultation commenced in mid 2014.</p>
<p>The Training System developed by JSF Division has not been adequately planned and resourced. This does not provide RAAF with the necessary Fundamental Inputs to Capability enablers to support Royal Australian Air Force sovereign F-35 training requirements, leading to delay or failure to achieve Australian IOC and FOC.</p>	<p>Clarify the requirements through the Baseline Control Board process to ensure an agreed outcome.</p> <p>Work with all stakeholders to undertake better planning to ensure expectations are clearly understood.</p> <p>Identify any cost impacts.</p>

Section 6 – Project Maturity

6.1 Project Maturity Score and Benchmark

Maturity Score		Attributes							Total
		Schedule	Cost	Requirement	Technical Understanding	Technical Difficulty	Commercial	Operations and Support	
Project Stage	Benchmark	6	6	6	6	6	6	6	42
Enter Contract	Project Status	7	6	6	6	7	6	5	43
	Explanation	<ul style="list-style-type: none"> Schedule: IMR and FMR delivery dates have been updated to reflect the Second Pass Approval for Stage 2 and are within MAA tolerances. Technical Difficulty: The JSF aircraft is an extremely complex weapon system, and challenges remain in developing the mature (Blocks 3 and 4) software. Operations and Support: Global sustainment arrangements are still relatively immature; however they are now becoming a focus for the US Project Office and Lockheed Martin. The NACC Project is refining its own sustainment costs based on JPO analysis and through a series of scenario-based 'war games'. 							

Project Stage	Maturity Score
Enter DCP	13
Decide Viable Capability Options	16
1st Pass Approval	21
Industry Proposals / Offers	30
2nd Pass Approval	35
Contract Signature	42
Preliminary Design Review(s)	45
Detailed Design Review(s)	50
Complete Sys. Integ. & Test	55
Complete Acceptance Testing	57
Initial Materiel Release (IMR)	60
Final Materiel Release (FMR)	63
Final Contract Acceptance	65
MAA Closure	66
Acceptance Into Service	67
Project Completion	70

2013-14 MPR Status - - - - - 2014-15 MPR Status - - - - -

Section 7 – Lessons Learned

7.1 Key Lessons Learned

Project Lesson	Categories of Systemic Lessons
JSF is a complex program that requires a robust Program Management framework to be established early in the life of the program lifecycle.	Governance
JSF is a collaborative program that requires active engagement to ensure national requirements are met.	Requirements Management
JSF Production, Sustainment and Follow-on Development Memorandum of Understanding is run by the Joint Program Office and it is difficult to predict cost, schedule and associated budgeting impact on ADF processes and procurement.	Governance
Integration of JSF into ADF systems of systems has been underestimated.	Requirements Management
The collaborative environment of the JSF program introduces additional stakeholder complexity due to the engagement of the nine partner nations.	Governance

Section 8 – Project Line Management

8.1 Project Line Management in 2014-15

Position	Name
General Manager	Ms Shireane McKinnie
Division Head	AVM Chris Deeble
Branch Head	AIRCDRE Catherine Roberts (to Nov 14) AIRCDRE Terry Saunder (Dec 14–current)
Project Director	GPCAPT John Ibbotson (to Dec 14) GPCAPT David Scheul (Jan 15–current)
Project Director	Mr Todd Russell
Project Director	GPCAPT Michael Brown
Project Manager	Mr Bill Greenwood